



#3

SEQUENCE LISTING

<110> ~~SHREIBER~~ ZINGER, CHRISTINA M.
HASSIG, CHRISTIAN A.
SCHREIBER, STUART L.

<120> CLASS II HUMAN HISTONE DEACETYLASES, AND USES RELATED
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<140> 09/800,187
<141> 2001-03-05

<150> 60/186,802
<151> 2000-03-03

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<170> PatentIn Ver. 2.1

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Ala Leu Arg Glu Gln Gln Leu Gln Gln Glu Leu Leu Ala Leu Lys Gln
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Lys Gln Gln Ile Gln Arg Gln Ile Leu Ile Ala Glu Phe Gln Arg Gln
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His Glu Gln Leu Ser Arg Gln His Glu Ala Gln Leu His Glu His Ile
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 His Cys Ile Ser Ser Asp Pro Arg Tyr Trp Tyr Gly Lys Thr Gln His
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<212> PRT

<213> Homo sapiens

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 Gln Ser Ser Pro Leu Pro Gln Ser Pro Gln Ala Leu Gln Gln Leu Val
 500 505 510

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Glu	Asp	Gly	Glu	Glu	Glu	Glu	Asp	Cys	Ile	Gln	Val	Lys	Asp	Glu	Glu	595	600	605	
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Gly	Pro	Ile	Ser	Gln	Lys	Met	Tyr	Ala	Val	Leu	Pro	Cys	Gly	Gly	Ile	770	775	780	
Gly	Val	Asp	Ser	Asp	Thr	Val	Trp	Asn	Glu	Met	His	Ser	Ser	Ser	Ala	785	790	795	800
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 Ala Gly Phe Asp Ala Val Glu Gly His Leu Ser Pro Leu Gly Gly Tyr
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 Ser Val Thr Ala Arg Cys Phe Gly His Leu Thr Arg Gln Leu Met Thr
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 Val Glu Leu Gln Pro Leu Asp Glu Ala Val Leu Gln Gln Lys Pro Asn
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<213> Homo sapiens

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Arg Asn Ile Lys Lys Gly Ala Val Pro Arg Ser Ile Pro Asn Leu Ala
      35              40              45

Glu Val Lys Lys Lys Gly Lys Met Lys Lys Leu Gly Gln Ala Met Glu
      50              55              60

Glu Asp Leu Ile Val Gly Leu Gln Gly Met Asp Leu Asn Leu Glu Ala
      65              70              75              80

Glu Ala Leu Ala Gly Thr Gly Leu Val Leu Asp Glu Gln Leu Asn Glu
      85              90              95

Phe His Cys Leu Trp Asp Asp Ser Phe Pro Glu Gly Pro Glu Arg Leu
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His Ala Ile Lys Glu Gln Leu Ile Gln Glu Gly Leu Leu Asp Arg Cys
      115             120             125

Val Ser Phe Gln Ala Arg Phe Ala Glu Lys Glu Glu Leu Met Leu Val
      130             135             140

His Ser Leu Glu Tyr Ile Asp Leu Met Glu Thr Thr Gln Tyr Met Asn
      145             150             155             160

Glu Gly Glu Leu Arg Val Leu Ala Asp Thr Tyr Asp Ser Val Tyr Leu
      165             170             175

His Pro Asn Ser Tyr Ser Cys Ala Cys Leu Ala Ser Gly Ser Val Leu
      180             185             190

Arg Leu Val Asp Ala Val Leu Gly Ala Glu Ile Arg Asn Gly Met Ala
      195             200             205

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Ile	Ile	Arg	Pro	Pro	Gly	His	His	Ala	Gln	His	Ser	Leu	Met	Asp	Gly	210	215	220
Tyr	Cys	Met	Phe	Asn	His	Val	Ala	Val	Ala	Ala	Arg	Tyr	Ala	Gln	Gln	225	230	235
Lys	His	Arg	Ile	Arg	Arg	Val	Leu	Ile	Val	Asp	Trp	Asp	Val	His	His	245	250	255
Gly	Gln	Gly	Thr	Gln	Phe	Thr	Phe	Asp	Gln	Asp	Pro	Ser	Val	Leu	Tyr	260	265	270
Phe	Ser	Ile	His	Arg	Tyr	Glu	Gln	Gly	Arg	Phe	Trp	Pro	His	Leu	Lys	275	280	285
Ala	Ser	Asn	Trp	Ser	Thr	Thr	Gly	Phe	Gly	Gln	Gly	Gln	Gly	Tyr	Thr	290	295	300
Ile	Asn	Val	Pro	Trp	Asn	Gln	Val	Gly	Met	Arg	Asp	Ala	Asp	Tyr	Ile	305	310	315
Ala	Ala	Phe	Leu	His	Val	Leu	Leu	Pro	Val	Ala	Leu	Glu	Phe	Gln	Pro	325	330	335
Gln	Leu	Val	Leu	Val	Ala	Ala	Gly	Phe	Asp	Ala	Leu	Gln	Gly	Asp	Pro	340	345	350
Lys	Gly	Glu	Met	Ala	Ala	Thr	Pro	Ala	Gly	Phe	Ala	Gln	Leu	Thr	His	355	360	365
Leu	Leu	Met	Gly	Leu	Ala	Gly	Gly	Lys	Leu	Ile	Leu	Ser	Leu	Glu	Gly	370	375	380
Gly	Tyr	Asn	Leu	Arg	Ala	Leu	Ala	Glu	Gly	Val	Ser	Ala	Ser	Leu	His	385	390	395
Thr	Leu	Leu	Gly	Asp	Pro	Cys	Pro	Met	Leu	Glu	Ser	Pro	Gly	Ala	Pro	405	410	415
Cys	Arg	Ser	Ala	Gln	Ala	Ser	Val	Ser	Cys	Ala	Leu	Glu	Ala	Leu	Glu	420	425	430
Pro	Phe	Trp	Glu	Val	Leu	Val	Arg	Ser	Thr	Glu	Thr	Val	Glu	Arg	Asp	435	440	445
Asn	Met	Glu	Glu	Asp	Asn	Val	Glu	Glu	Ser	Glu	Glu	Glu	Gly	Pro	Trp	450	455	460
Glu	Pro	Pro	Val	Leu	Pro	Ile	Leu	Thr	Trp	Pro	Val	Leu	Gln	Ser	Arg	465	470	475
Thr	Gly	Leu	Val	Tyr	Asp	Gln	Asn	Met	Met	Asn	His	Cys	Asn	Leu	Trp	485	490	495
Asp	Ser	His	His	Pro	Glu	Val	Pro	Gln	Arg	Ile	Leu	Arg	Ile	Met	Cys	500	505	510

Arg Leu Glu Glu Leu Gly Leu Ala Gly Arg Cys Leu Thr Leu Thr Pro
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 Arg Pro Ala Thr Glu Ala Glu Leu Leu Thr Cys His Ser Ala Glu Tyr
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 Val Gly His Leu Arg Ala Thr Glu Lys Met Lys Thr Arg Glu Leu His
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 Ala Cys Ala Gln Leu Ala Thr Gly Ala Ala Cys Arg Leu Val Glu Ala
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 Val Leu Ser Gly Glu Val Leu Asn Gly Ala Ala Val Val Arg Pro Pro
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 Gly His His Ala Glu Gln Asp Ala Ala Cys Gly Phe Cys Phe Phe Asn
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 Ser Val Ala Val Ala Ala Arg His Ala Gln Thr Ile Ser Gly His Ala
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 Gln His Met Phe Glu Asp Asp Pro Ser Val Leu Tyr Val Ser Leu His
 660 665 670
 Arg Tyr Asp His Gly Thr Phe Phe Pro Met Gly Asp Glu Gly Ala Ser
 675 680 685
 Ser Gln Ile Gly Arg Ala Ala Gly Thr Gly Phe Thr Val Asn Val Ala
 690 695 700
 Trp Asn Gly Pro Arg Met Gly Asp Ala Asp Tyr Leu Ala Ala Trp His
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 Val Ser Ala Gly Phe Asp Ala Ala Arg Gly Asp Pro Leu Gly Gly Cys
 740 745 750
 Gln Val Ser Pro Glu Gly Tyr Ala His Leu Thr His Leu Leu Met Gly
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 Thr Ser Ile Ser Glu Ser Met Ala Ala Cys Thr Arg Ser Leu Leu Gly
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 Asn Ser Glu Thr Ala Val Val Ala Leu Thr Gln Asp Gln Pro Ser Glu
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Arg Tyr Xaa Xaa Gly Xaa Phe Xaa Pro Xaa Xaa
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 Gln Gln Ala Ala Leu Glu Arg Thr Val His Pro Asn Ser Pro Gly Ile
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 Pro Tyr Arg Thr Leu Glu Pro Leu Glu Thr Glu Gly Ala Thr Arg Ser
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Pro Glu His Phe Pro Leu Arg Lys Thr Val Ser Glu Pro Asn Leu Lys
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 Leu Arg Tyr Lys Pro Lys Lys Ser Leu Glu Arg Arg Lys Asn Pro Leu
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 Leu Arg Lys Glu Ser Ala Pro Pro Ser Leu Arg Arg Arg Pro Ala Glu
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 Thr Leu Gly Asp Ser Ser Pro Ser Ser Ser Thr Pro Ala Ser Gly
 195 200 205
 Cys Ser Ser Pro Asn Asp Ser Glu His Gly Pro Asn Pro Ile Leu Gly
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 Asp Ser Asp Arg Arg Thr His Pro Thr Leu Gly Pro Arg Gly Pro Ile
 225 230 235 240
 Leu Gly Ser Pro His Thr Pro Leu Phe Leu Pro His Gly Leu Glu Pro
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 Asp Pro Ser Gly Ser His Ala Pro Leu Leu Thr Val Pro Gly Leu Gly
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 Pro Leu Pro Phe His Phe Ala Gln Ser Leu Met Thr Thr Glu Arg Leu
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Gly	Leu	Ile	Tyr	Asp	Ser	Val	Met	Leu	Lys	His	Gln	Cys	Ser	Cys	Gly	485	490	495
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Trp	Ala	Gly	Gly	Leu	Asp	Pro	Pro	Met	Gly	Asp	Pro	Glu	Tyr	Leu	Ala	725	730	735
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 Gln Gln Leu Met Asn Leu Ala Gly Gly Ala Val Val Leu Ala Leu Glu
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 Ala Ala Leu Leu Gly Asn Arg Val Asp Pro Leu Ser Glu Glu Gly Trp
 820 825 830
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<211> 4178

<212> DNA

<213> Homo sapiens

<400> 13

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<212> PRT

<213> Homo sapiens

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Met	Met	Pro	Val	Val	Asp	Pro	Val	Val	Arg	Glu	Lys	Gln	Leu	Gln	Gln
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Glu	Leu	Leu	Leu	Ile	Gln	Gln	Gln	Gln	Gln	Ile	Gln	Lys	Gln	Leu	Leu
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Ile	Ala	Glu	Phe	Gln	Lys	Gln	His	Glu	Asn	Leu	Thr	Arg	Gln	His	Gln
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Gln	Glu	Leu	Leu	Glu	Lys	Glu	Gln	Lys	Leu	Glu	Gln	Gln	Arg	Gln	Glu
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Gly	Lys	Asp	Arg	Gly	Arg	Glu	Arg	Ala	Val	Ala	Ser	Thr	Glu	Val	Lys
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Pro	Thr	Asn	Gly	Lys	Asn	His	Ser	Val	Ser	Arg	His	Pro	Lys	Leu	Trp
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 Val Lys Val Lys Glu Glu Pro Val Asp Ser Asp Glu Asp Ala Gln Ile
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<212> PRT

<213> Homo sapiens

<400> 15

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Tyr Ile Asp Ile Asp Ile His His Gly Asp Gly Val Glu Glu Ala Phe
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Tyr Thr Thr Asp Arg Val Met Thr Val Ser Phe His Lys Tyr Gly Glu
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Tyr Phe Pro Gly Thr
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<210> 16

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<212> PRT

<213> Saccharomyces sp.

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His His Ala Glu Pro Gln Ala Ala Gly Gly Phe Cys Leu Phe Ser Asn
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20 25 30

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Gln Lys Ser Phe Tyr Gln Asp Asp Gln Val Leu Tyr Val Ser Leu His
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Arg Phe Glu Met Gly Lys Tyr Tyr Pro Gly Thr
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<210> 17

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<223> Any amino acid

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